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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/084,608 | 02/26/2002 | Norio Koma | 349 | 4219 |
| 26021 | 7590 | 09/07/2004 | EXAMINER | |
| HOGAN & HARTSON L.L.P. 500 S. GRAND AVENUE SUITE 1900 LOS ANGELES, CA 90071-2611 | | | | WANG, GEORGE Y |
| ART UNIT | | PAPER NUMBER | | |
| | | | | 2871 |

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/084,608 | KOMA, NORIO | |
| | Examiner | Art Unit | |
| | George Y. Wang | 2871 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 16 June 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) 1-13 and 17-19 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 14-16 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 26 February 2002 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. 09/162,984.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Election/Restrictions

1. This application contains claims 1-13 drawn to an invention nonelected without traverse in Election filed October 22, 2003. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

2. Newly submitted claims 17-19 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

This application contains claims directed to the following patentably distinct species of the claimed invention:

(1) the specifics of the vertically aligned LCD comprising on of a plurality of orientation controllers being disposed between the two slits or projections or between the corresponding one or more of the slits or projections comprising a first embodiment corresponding to claims 14-16;

(2) the specifics of the vertically aligned LCD comprising on of a plurality of orientation controllers being disposed between the two slits or projections and between the corresponding one or more of the slits or projections comprising a second embodiment corresponding to claims 17-19.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for

prosecution on the merits. Accordingly, claims 17-19 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koma (U.S. Patent No. 5,608,556) in view of Yamada et al. (U.S. Patent No. 5,880,797, from hereinafter "Yamada").

5. As to claim 14, Koma discloses a vertically aligned liquid crystal display (fig. 4) comprising a vertically aligned liquid crystal layer (fig. 4, ref. 41) disposed between a plurality of pixel electrodes (fig. 4, ref 31) and a common electrode (fig. 4, ref. 32), where the orientation of the liquid crystal is controlled by an electric field (fig. 5, ref. 42), the common electrode comprises a plurality of orientation controllers (fig. 4, ref. 33a) formed in areas corresponding to each of the plurality of pixel electrodes,

However, the reference fails to specifically disclose each of a plurality of the pixel electrodes divided by one or more slits or projections into two or more electrode

regions, which are electrically connected and arranged in parallel with each other, and each of the orientation controllers associated with a corresponding pixel electrode and having portions extending along the direction in which one or more slits or projections extend where one of the orientation controllers is disposed between the two slits.

Yamada discloses each of a plurality of the pixel electrodes (fig. 3, ref. 201) divided by one or more slits or projections (fig. 3, ref. 20) into two or more electrode regions, which are electrically connected and arranged in parallel with each other, and each of the orientation controllers associated with a corresponding pixel electrode and having portions extending along the direction in which one or more slits or projections extend where one of the orientation controllers (col. 7, ref. 42-53) is disposed between the two slits.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have each of a plurality of the pixel electrodes divided by one or more slits or projections into two or more electrode regions, which are electrically connected and arranged in parallel with each other, and each of the orientation controllers associated with a corresponding pixel electrode and having portions extending along the direction in which one or more slits or projections extend where one of the orientation controllers is disposed between the two slits since one would be motivated to better control the axial-symmetric orientation axis (col. 4, lines 31-39) for improved excellent display characteristic with no display roughness (col. 7, lines 47-53). Furthermore, a display with enhanced viewing angle characteristic and transmittance is provided with a reduced number of production steps (col. 4, lines 59-67).

6. Regarding claims 15-16, Koma discloses the vertically aligned LCD as recited above, however, the reference fails to specifically disclose orientation controllers with sloped projections extending along the longer edge of the electrode region and branching at both longitudinal ends of a corresponding one of the electrode regions toward the corner section of the electrode.

Yamada discloses orientation controllers with sloped projections extending along the longer edge of the electrode region and branching at both longitudinal ends of a corresponding one of the electrode regions toward the corner section of the electrode.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have orientation controllers with sloped projections extending along the longer edge of the electrode region (fig. 4a) and branching at both longitudinal ends of a corresponding one of the electrode regions toward the corner section of the electrode (fig. 4b) since one would be motivated to better control the axial-symmetric orientation axis (col. 4, lines 31-39) for improved excellent display characteristic with no display roughness (col. 7, lines 47-53). Furthermore, a display with enhanced viewing angle characteristic and transmittance is provided with a reduced number of production steps (col. 4, lines 59-67).

Response to Arguments

7. Applicant's arguments filed June 16, 2004 have been fully considered but they are not persuasive.

Applicant's main argument is the Yamada reference does not disclose a pixel electrode having a "slit." Applicant asserts that fig. 3, ref. 20 of Yamada is "concave portion" and not a slit, which is cut in an electrode. However, Examiner disagrees. First, nowhere in the claim language or the specification is the term "slit" defined as a cut in the electrode as Applicant presumes. Second, even if assuming Applicant definition of slit, which it is not, the concave portions taught by Yamada still meet the limitation since the depressed regions clearly represent "cuts" in the electrode.

Therefore, Examiner holds to the validity of the references and maintains rejection.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Y. Wang whose telephone number is 571-272-2304. The examiner can normally be reached on M-F, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gw
September 1, 2004



TARIFUR R. CHOWDHURY
PRIMARY EXAMINER